**Technology:** <u>Inhibition of palmitoyl acyl transferase expression and/or activity for the regulation of antiproliferative factor activity</u>

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The VA has joint ownership with The University of Florida and University of Maryland

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**Abstract:** The invention generally concerns inhibition of a molecule that has a role in post-translational modification of a receptor for antiproliferative factor (APF) of bladder epithelial cells, thereby modulating the APF. In particular, inhibition of DHHC2 activity and/or ZDHHC2 expression results in modulation of APF receptor activity, and in specific aspects such modulation is therapeutic and/or preventative for a bladder condition, such as interstitial cystitis. In addition, inhibition of CKAP4 palmitoylation in certain cases also decreases its activity as a tPA receptor on smooth muscle cells or surfactant A on type II pneumocytes, and/or generally inhibits its function as a cell membrane receptor, cell chaperone molecule, and/or membrane trafficking agent. ##STR00001##